REMARKS

Claims 1-36 stand rejected under 35 U.S.C. §102(e) as being anticipated by Jaszczak et al. Applicant has amended the claims to further define the structure of the claimed invention. The amendments are not made to define over the art, but rather to impart structural elements into the claims such that patentable weight will be given thereto.

As set forth previously, in the Amendment/Response filed May 23, 2005, Applicant requested a copy of U.S. Ser. No. 60/209,520 as the Examiner had relied upon the June 5, 2000 filing date thereof to maintain a §102(e) rejection of the present application. With the request for a copy of the above-referenced provisional application, Applicant filed an antedating declaration disqualifying USP 6,629,469 as a reference based on its filing date of June 5, 2001. As the Examiner has provided a copy of the corresponding provisional application, the Examiner has asserted that the filing date of the provisional application is the earliest effective priority date for §102(e) purposes. The Examiner is correct, however, for only those portions of the reference patent that were enabled by the disclosure of the provisional application. In other words, the filing date of the provisional application only applies to those portions of the reference patent that were disclosed in the provisional application. Therefore, for purposes of this Response, reference will be made to the provisional application relative to the claimed invention.

In the provisional application, a cardiac phantom is disclosed and, in particular, is a "left ventricular assembly" that "comprises a hollow double-layered latex balloons 22, 24 in an ellipsoid shape which approximates the size and shape of the left ventricular portion of a human heart." *U.S. Ser. No. 60/209,520*, p. 3, ll. 7-9. As shown in the corresponding Fig. 5, the provisional application discloses a left ventricular phantom (12) that is comprised of a pair of overlapping balloons (22, 24) that share a common fluid inlet (32). The inlet (32) is connected to a fluid delivery system (14) that includes a tubing (28) and a pump assembly (30). As such, the only disclosure of the non-provisional application that is enabled by the provisional application is that of a left ventricular phantom having a single inlet and absent any outlets or protrusions.

As is well-known, the human heart consists of four general chambers: the right atrium, the right ventricle, the left atrium, and the left ventricle. The left ventricle is primarily responsible for pumping blood through the aortic valve into the aorta, which is the main artery of the human body. The left ventricle is typically characterized by thicker muscle than the other heart chambers because it must pump blood to the rest of the body against must higher pressure in the general blood circulation. The provisional application discloses a heart phantom that is

focused on the left ventricle of the heart system to mimic motion only in the left ventricle in a cardiac cycle. To this end, the provisional application discloses a "left ventricular assembly". *Id.*

In contrast, claim 1 calls for a phantom body that has a shell whose interior surface defines a fluid chamber connected to "a plurality of protrusions" and that has "a shape to simulate a plurality of chambers of the heart". Thus, claim 1 calls for a heart phantom that, at a minimum, mimics at least two chambers of the heart. On the other hand, as referenced above, the provisional application only teaches a single chamber phantom and, in particular, a left ventricle phantom. As such, the disclosure of the provisional application cannot be relied upon to support a §102(e) rejection of amended claim 1.

Similarly, claim 7 calls for a cardiac motion simulator that includes a balloon defining a fluid chamber having an inlet and a plurality of outlets. The simulator further has a plurality of tubes connected to the balloon and in fluid communication with the fluid chamber. The tubes correspond to the number of outlets, wherein each tube has an inlet that is connected to an outlet. As described above, the provisional application discloses and enables a balloon having only a single inlet. As such, not only does the provisional application not disclose a balloon having a plurality of outlets, the provisional application also fails to teach a plurality of tubes connected to the balloon outlets. Accordingly, the filing date of the provisional application cannot be relied upon to sustain a §102(e) rejection of claim 7.

Likewise, claim 16 calls for a computer program that includes the act of supplying fluid to an expandable fluidic chamber having a plurality of expandable tubes connected thereto. Figure 5 of the provisional application is clear that the balloon disclosed does not have any expandable tubes connected thereto. At best, the provisional figures include a single balloon protuberance – not the claimed plurality. Moreover, while the provisional application discloses that the left ventricular assembly is used to simulate the phases of cardiac activity, the provisional application fails to anticipate the manner in which such cardiac activity is mimicked by the computer-initiated acts of claim 16. As such, the provisional application cannot be relied upon to sustain a §102(e) rejection of claim 16.

Claim 25 calls for, in part, a balloon having an inlet and a plurality of tubular protrusions connected to a fluid reservoir. At best, the provisional discloses a balloon having a single protuberance – not the claimed plurality of protrusions. Applicant agrees that the provisional application enables a balloon having an inlet connected to a fluid reservoir, however, the application fails to enable a balloon also having plurality of tubular protrusions connected to the

fluid reservoir. Therefore, the filing date of the provisional application cannot be relied upon to sustain a rejection of claim 25.

Claim 34 calls for a CT system having, in part, components to acquire imaging data from an expandable balloon having a plurality of tubular protrusions and an inlet configured to receive circulating fluid to mimic cardiac motion. First, the provisional application fails to disclose the particulars of a CT system. Second, as discussed above, the phantom disclosed in the provisional application lacks a balloon having a plurality of tubular protrusions called for in the claim. Applicant agrees that the provisional application teaches a phantom with a fluid inlet, but the phantom does not have the claimed tubular protrusions. As such, the filing date of the provisional application cannot be relied upon to sustain a rejection of claim 34 under 35 U.S.C. §102(e).

Therefore, in light of at least the foregoing, Applicant respectfully believes that filing date of the provisional application cannot be relied upon to sustain a rejection of claims 1 and 4-36 and, given that USP 6, 629, 469 is not prior art against the claimed invention for those portions of the reference not enabled by the provisional application, the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1 and 4-36.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

/J. Mark Wilkinson/

J. Mark Wilkinson
Registration No. 48,865
Direct Dial 262-376-5016
jmw@zpspatents.com

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P.O. ADDRESS:
Ziolkowski Patent Solutions Group, SC
14135 North Cedarburg Road
Mequon, WI 53097-1416
262-376-5170